

PATENT

IN THE UNITED STATES PATENT & TRADEMARK OFFICE

Applicant:	Kuchibhotla, Ravi.)	
)	Examiner V. Lesniewski
Appl. No.	10/680,662)	
)	Art Unit 2152
Confirm. No.	5428)	
)	Atty. Docket No. CS23283RL
Filed:	07 October 2003)	
Title:	"Method and Apparatus for Routing Messages in a Network"		

APPEAL BRIEF UNDER 37 C.F.R. § 41.37(c)

Assistant Commissioner for Patents
Alexandria, Virginia 22313

Sir:

Real Party In Interest

The real party in interest is Motorola Inc., by virtue of an assignment duly executed by the named inventor(s) and recorded in the Patent Office.

Although an assignment has been executed, the reel and frame information has not been received from the United States Patent Office. A copy of the executed assignment as transmitted to the U.S.P.T.O. is enclosed in Appendix B.

Related Appeals & Interferences

There are no related appeals or interferences.

Status of Claims

Claims 1-39 are pending. Claims 1-39 are finally rejected and are the subject of the instant appeal. A copy of the claims pending is attached in Appendix A.

Status of Amendments

No amendments have been filed subsequent to the mailing of the final Office Action on 18 August 2005.

Summary of Claimed Subject Matter

In one embodiment, a communication device transmits a signaling connection establishment message on a radio connection, the signaling connection establishment message includes a registration request message. Page 7 lines 10 – 11. The communication device receives a registration accept message on the radio connection. Page 7 lines 13 – 14. The device then transmits an uplink signaling message on the radio connection, the uplink signaling message including a core network operator identifier. Page 7 lines 16 – 18.

In another embodiment, a mobile communication device, receives a system information broadcast message and requests a radio connection. The mobile

device receives a grant of a radio connection. The mobile device transmits a signaling connection establishment message on the radio connection, the signaling connection establishment message including a registration request message, then receives a registration accept message on the radio connection. The mobile device then transmits an uplink signaling message on the radio connection, the uplink signaling message including a core network operator identifier. Page, 6, lines 30, page 7 line 21.

In another embodiment, a method for routing messages comprises receiving radio connection request message and then sending a radio connection grant message. Then receiving a signaling connection establishment message including a registration request message. In response, sending a registration accept message and receiving an uplink signaling message, that includes a core network operator identifier. Page 8, line 20 – page 9, line 7.

In another embodiment a mobile communication device comprises a transceiver, a controller coupled to the transceiver, and a signaling message module coupled to the controller, the signaling message module configured to transmit a signaling connection establishment message on a radio connection, the signaling connection establishment message including a registration request message, receive a registration accept message on the radio connection, and transmit an uplink signaling message on the radio connection, the uplink signaling message including a core network operator identifier. Page 6, lines 10 –line 30.

In yet another embodiment a method for routing messages in a network comprises receiving a radio connection request message and in response thereto sending a radio connection grant message. Then receiving a signaling connection establishment message including a registration request message and selecting a core network from a plurality of core networks to process the registration message.

Page 8, line 20 – page 9, line 7.

In yet another embodiment, a method in a mobile communication device comprises receiving a system information broadcast message then transmitting a signaling connection establishment message on the radio connection. After receiving a registration accept message on the radio connection, transmitting an uplink signaling message on the radio connection, the uplink signaling message including a core network operator identifier.

Page, 11, line 29 – page 12, line 8

In one embodiment, a method in a communication device, comprises transmitting a signaling connection establishment message on a connection, the signaling connection establishment message including a registration request message, then receiving a registration accept message on the connection and also transmitting an uplink signaling message on the connection, the uplink signaling message including a core network operator identifier.

Page 7 lines 16 – 18

Grounds of Rejection for Review on Appeal

Whether Claims 1-39 are patentable over U.S. Patent Application No. 2002/0193139 (Mildh) under 35 USC 102(e). Final Office Action, 17 October 2006.

Whether Claims 1-39 are patentable over U.S. Patent Application No. 2002/0193139 (Mildh) under 35 USC 103(a). Final Office Action, 17 October 2006.

Whether Claims 1-39 are patentable over U.S. Patent Application No. 2004/0162077 (Kauranen) under 35 USC 102(e). Final Office Action, 17 October 2006.

Whether Claims 1-39 are patentable over U.S. Patent Application No. 2004/0162077 (Kauranen) under 35 USC 103(a). Final Office Action, 17 October 2006.

Arguments

Discussion of Claim 1

Regarding Claim 1, contrary to the Examiner's assertion, Mildh fails to disclose or suggest a

transmitting a signaling connection establishment message on a radio connection, the signaling connection establishment message including a registration request message;

receiving a registration accept message on the radio connection; and

transmitting an uplink signaling message on the radio connection, the uplink signaling message including a core network operator identifier.

At paragraph [0008], Mildh discusses a method for providing parameters to a mobile station entering a combined or mixed network cell, where the mobile can select different modes of operation corresponding to a plurality of core networks. The parameters indicate which mode of operation the mobile should select. The parameters can be furnished to the mobile station by broadcasting system or packet system information. This is simply not the same as transmitting (from the mobile station to the network) an uplink (from the communication device to the network) signaling message on the radio connection, the uplink signaling message

including a core network operator identifier as recited in independent claim 1 and similarly in independent claims 9, 24, 31 and 33 (transmitting an uplink signaling message on the radio connection, the uplink signaling message including a core network operator).

Mildh does not disclose transmitting a registration request message; receiving a registration accept message; nor transmitting an uplink signaling message, the message including a core network operator identifier. Claim 1 is patentably distinguished over Mildh.

Additionally, Kauranen fails to disclose or suggest the features of claim 1. At [0017] Kaurnen discusses the selection of the core network by the radio access network. If the core network cannot serve the request, the RAN forwards the request to another core network. This is simply not the same as transmitting an uplink signaling message on the radio connection, the uplink signaling message including a core network operator identifier. The mobile station has identified the core network and on the uplink to the RAN, the core network identifier is sent in the signaling message. In Kaurnen, the RAN selects the Core network. Claim 1 is patentably distinguished over Kaurnen.

Allowability of Claims 2, 10, 16 and 34

Regarding Claims 2, 10, 16 and 34 Mildh fails to disclose or suggest,

wherein the uplink signaling message comprises a non-access stratum signaling message.

Contrary to the Examiner's assertion, the reference in Mildh merely indicates a user data path that can be set up to the mobile station 32 from the gateway 12 through a base station 18. Mildh makes no reference to an uplink signaling message comprises a non-access stratum signaling message. Claim 2 is thus further patentably distinguished over Mildh.

Allowability of Claim 3, 4, 17, 18, 25, 30, 32, 35 and 37

Regarding Claims 3, 4, 17, 18, 25, 30, 32, 35 and 37, Mildh fails to disclose or suggest,

... wherein the uplink signaling message includes a domain identity.

Contrary to the Examiner's assertion, Mildh, as referenced by the Examiner, describes in general describes the RAN and the core networks basic function, the RAN deals with radio resource handling while the core network provides other services such as mobility management, IP address allocation and call control facilities to the user equipment (UE). Mildh makes no reference to or has no relation to the uplink signaling message including a domain identity nor the other features of independent claim 1 and dependent claim 2. Claim 3 is thus further patentably distinguished over Mildh.

Allowability of Claims 5, 11, 19, 26 and 37

Regarding Claim 5, Mildh fails to disclose or suggest in combination with Claim 1,

... wherein the signaling connection establishment message comprises an initial core network signaling message.

Mildh does not disclose that a signaling connection establishment message comprises an initial core network signaling message. Mildh discloses the state controlled selection of a mode of operation. Mildh goes on to say that the mobile station uses its current mode of operation to decide mode of operation upon entering a new combination cell. This is not the same as a signaling connection establishment message that comprises an initial core network signaling message. Thus Mildh does not disclose a signaling connection establishment message comprises an initial core network signaling message. Claim 5, 11, 19, 26 and 37 is thus further patentably distinguished over Mildh.

Allowability of Claim 6, 7, 20, 21, 38 and 39

Regarding Claims 6, 7 in combination with claim 1, claims 20 and 21 in combination with claim 12 and claims 38 and 39, in combination with claim Mildh fails to disclose or suggest,

... wherein the registration request message includes a desired core network operator identifier.

Mildh does not disclose a registration request message that includes a desired core network operator identifier. Mildh discloses predefined rules for mode selection, such as a preferences for interfaces ... that are set in the MS SIM card. The network in Mildh provides information to the mobile station for selecting mode of operation. This is simply not the same as the mobile in a registration request message, including the desired core network identifier. Thus, claims 6, 7, 20, 21, 38 and 39 in combination with their respective independent claims are thus further patentably distinguished over Mildh.

Allowability of Claims 8 and 22

Regarding Claim 8 and 22, Mildh fails to disclose or suggest in combination with Claim 1,

... the core network operator identifier comprises a public land mobile network identity including a mobile country code and a mobile network code.

Mildh does not disclose a public land mobile network identity including a mobile country code and a mobile network code. Thus there is no disclosure or suggestion in Mildh of a core network operator identifier that comprises a public land mobile network identity including a mobile country code and a mobile network code. . Claims 8 and 22 are thus further patentably distinguished over Mildh.

Allowability of Claim 14

Regarding Claim 14 in combination with claim 12, contrary to the Examiner's assertion, Mildh, in view of well know mobility processing to one skilled in the art, fails to disclose or suggest:

 sending a registration accept message;
 receiving an uplink signaling message, the uplink signaling message including a core network operator identifier.

Further, from claim 14,

 ... sending a registration denial message, the registration denial message including a forbidden core network operator identifier.

As examiner admits, Mildh does not disclose sending a registration denial message. As discussed above, Mildh does not disclose sending a registration accept message nor the step of receiving an uplink signaling message, the uplink signaling message including a core network operator identifier.

Claim 14 is thus patentably distinguished over Mildh.

Allowability of Claim 23

Regarding Claim 23, in combination with claim 12, contrary to the Examiner's assertion, Mildh fails to disclose or suggest a

... forwarding the non-access stratum signaling message to a first core network operator when the non-access stratum signaling message is a circuit switched message; and

forwarding the non-access stratum signaling message to a second core network operator when the non-access stratum signaling message is a packet switched message.

At ([0004], [0008] and [0009]) Mildh generally discusses a method for providing parameters to a mobile station entering a combined or mixed network cell. Mildh does not disclose or discuss forwarding the non-access stratum signaling message to a first core network operator when the non-access stratum signaling message is a circuit switched message. Mildh generally discusses core network services are provided in both packet-switched and circuit-switched domains. This is simply not the same as forwarding the non-access stratum signaling message to a first core network operator when the non-access stratum signaling message is a circuit switched message nor forwarding the non-access stratum signaling message to a second core network operator when the non-access stratum signaling message is a packet switched message. Claim 23 is thus patentably distinguished over Mildh.

Allowability of Claims 28 and 29

Regarding Claims 28 and 29, contrary to the Examiner's assertion, Mildh fails to disclose or suggest a

... wherein the selecting step includes,
selecting a core network from a plurality of core networks in a random manner.

... and

... in a round robin manner.

For the random selection, at ([0038] and [0039]), Mildh generally discusses how the mode of selection may be carried out by storing specific information on the SIM to provide different contexts of the broadcast information on how the mode of operation selection shall be carried out indicating that the selection is not random or round robin but specifically instructed by the broadcast from the network.

Mildh does not disclose or discuss selecting a core network from a plurality of core networks in a random manner or a round robin manner. Claims 28 and 29 are thus patentably distinguished over Mildh.

Allowability of Claims 9, 12 and 15, 27, 31, 33

For the same reasons as discussed in reference to claim 1, Kaurnen does not disclose or suggest the features of claim 9 in combination with claim 1 and similarly claims 12 and 15, 27, 31 and 33. Thus claims 1, 9, 12, 15, 27, 31 and 33 are patentably distinguished over Kaurnen.

Allowability of claims 2, 10, 16 and 34.

Kaurnen discusses a non access stratum message and the problem of the rejection of service by all available core networks. For the same reasons as discussed in reference to claim 1, Kaurnen does not disclose or suggest the features of claim 2, 10, in combination with claim 1 and similarly claims 16 and 34. Thus claims 2, 10, 16 and 34 are patentably distinguished over Kaurnen.

Allowability of claims 3, 4, 17, 18, 25, 30, 32, 35 and 37.

Kaurnen generally discusses that the core networks may be divided in to different domains. For the same reasons as discussed in reference to claim 1, Kaurnen does not disclose or suggest the features of claim 3, 4, 17, 18, 25, 30, 32, 35 and 37 in combination with the respective independent claims. Thus claims 3, 4, 17, 18, 25, 30, 32, 35 and 37 are patentably distinguished over Kaurnen.

Allowability of claims 5, 11, 19, 26 and 37.

Kaurnen discusses at [0012] that the RAN forwards an initial message to one of the core networks. Kaurnen does not disclose that the signaling connection establishment message comprises an initial core network signaling message. In fact, Kaurnen, the RAN chooses the core network as the RAN is informed that the core network can not serve the user and the RAN, not the mobile station, reroutes the initial message to another core network. Thus claims 5, 11, 19, 26 and 37 are patentably distinguished over Kaurnen.

Allowability of claims 6, 7, 20, 21 38 and 39.

Kaurnen discusses at [0018] that the RAN keeps track of the core networks that have to which requests have already been sent. Kaurnen does not disclose that registration request message includes a desired core network operator identifier. Thus claims 6, 7, 20, 21 38 and 39 are patentably distinguished over Kaurnen.

Allowability of claims 8 and 22

In addition to the discussion above and particularly claim 1, Kaurnen does not disclose that core network identifier comprises a public land mobile network identity (PLMN). Thus claims 8 and 22 are patentably distinguished over Kaurnen.

Allowability of claim 14.

In addition to the discussion above and particularly claim 1, Kaurnen does not disclose that core network identifier comprises a public land mobile network identity (PLMN). Thus claim 14 is patentably distinguished over Kaurnen.

Allowability of claim 23.

As discussed above, Kaurnen generally discusses that the core networks may be divided in to different domains. For the same reasons as discussed in reference to claim 1, Kaurnen does not disclose or suggest the features of claim 23 in combination with the respective independent claims. Thus claim 23, is patentably distinguished over Kaurnen.

Allowability of claim 28 and 29.

Kaurnen generally discusses that the RNC (of the RAN) selects the core network from a list of available core networks. For the same reasons as discussed in reference to claim 1, Kaurnen does not disclose or discuss selecting a

core network from a plurality of core networks in a random manner or a round robin manner. Claims 28 and 29 are thus patentably distinguished over Kaumen.

Prayer For Relief

Kindly reverse and vacate the rejections of claims in view of the discussion above, with instructions for the Examiner to allow said Claims to issue in a United States Patent without further delay and provide other relief warranted.

Respectfully submitted,

/DAVID S NOSKOWICZ/

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APPENDIX A

1. (Original) A method in a communication device, comprising:

transmitting a signaling connection establishment message on a radio connection, the signaling connection establishment message including a registration request message;

receiving a registration accept message on the radio connection;

and

transmitting an uplink signaling message on the radio connection, the uplink signaling message including a core network operator identifier.
2. (Original) The method according to claim 1, wherein the uplink signaling message comprises a non-access stratum signaling message.
3. (Original) The method according to claim 2, wherein the uplink signaling message includes a domain identity.

4. (Original) The method according to claim 3, wherein the domain identity comprises at least one of a packet switched domain indicator and a circuit switched domain indicator.

5. (Original) The method according to claim 1, wherein the signaling connection establishment message comprises an initial core network signaling message.

6. (Original) The method according to claim 1, wherein the registration request message includes a desired core network operator identifier.

7. (Original) The method according to claim 1, wherein the registration accept message includes an assigned core network operator identifier.

8. (Original) The method according to claim 1, wherein the core network operator identifier comprises a public land mobile network identity including a mobile country code and a mobile network code.

9. (Original) A method in a mobile communication device, comprising:
- receiving a system information broadcast message;
 - requesting a radio connection;
 - receiving a grant of a radio connection;
 - transmitting a signaling connection establishment message on the radio connection, the signaling connection establishment message including a registration request message;
 - receiving a registration accept message on the radio connection;
 - and
 - transmitting an uplink signaling message on the radio connection, the uplink signaling message including a core network operator identifier.
10. (Original) The method according to claim 9, wherein the uplink signaling message comprises a non-access stratum signaling message.

11. (Original) The method according to claim 10, wherein the signaling connection establishment message comprises an initial core network signaling message.

12. (Original) A method for routing messages in a network, comprising:

receiving radio connection request message;

sending a radio connection grant message;

receiving a signaling connection establishment message

including a registration request message;

sending a registration accept message; and

receiving an uplink signaling message, the uplink signaling message including a core network operator identifier.

13. (Original) The method according to claim 12, further comprising determining whether the mobile communication device can receive a core network operator identifier in a registration accept message.

14. (Original) The method according to claim 12, further comprising sending a registration denial message, the registration denial message including a forbidden core network operator identifier.

15. (Original) The method according to claim 12, further comprising sending a radio system broadcast message.

16. (Original) The method according to claim 12, wherein the uplink signaling message comprises a non-access stratum signaling message.

17. (Original) The method according to claim 16, wherein the uplink signaling message includes a domain identity.

18. (Original) The method according to claim 17, wherein the domain identity comprises at least one of a packet switched domain indicator and a circuit switched domain indicator.

19. (Original) The method according to claim 12, wherein the signaling connection establishment message comprises an initial core network signaling message.

20. (Original) The method according to claim 12, wherein the registration request message includes a desired core network operator identifier.

21. (Original) The method according to claim 12, wherein the registration accept message includes an assigned core network operator identifier.

22. (Original) The method according to claim 12, wherein the core network operator identifier comprises a public land mobile network identity including a mobile country code and a mobile network code.

23. (Original) The method according to claim 12, further comprising:
forwarding the non-access stratum signaling message to a first core network operator when the non-access stratum signaling message is a circuit switched message; and

forwarding the forwarding the non-access stratum signaling message to a second core network operator when the non-access stratum signaling message is a packet switched message.

24. (Original) A mobile communication device, comprising:

a transceiver;

a controller coupled to the transceiver, the controller configured to control the operations of the mobile communication device; and

a signaling message module coupled to the controller, the signaling message module configured to transmit a signaling connection establishment message on a radio connection, the signaling connection establishment message including a registration request message, receive a registration accept message on the radio connection, and transmit an uplink signaling message on the radio connection, the uplink signaling message including a core network operator identifier.

25. (Original) The mobile communication device according to claim

24, wherein the uplink signaling message comprises a non-access stratum signaling

message and a domain identity, the domain identity comprising at least one of a packet switched domain indicator and a circuit switched domain indicator.

26. (Original) The mobile communication device according to claim 25, wherein the signaling connection establishment message comprises an initial core network signaling message.

27. (Original) A method for routing messages in a network, comprising:

- receiving radio connection request message;
- sending a radio connection grant message;
- receiving a signaling connection establishment message including a registration request message;
- selecting a core network from a plurality of core networks to process the registration message; and
- sending a registration accept message.

28. (Original) The method in claim 27, wherein the selecting step includes, selecting a core network from a plurality of core networks in a random manner.

29. (Original) The method in claim 27, wherein the selecting step includes, selecting a core network from a plurality of core networks in a round robin manner.

30. (Original) The method in claim 27, wherein the selecting step includes, selecting a core network from a plurality of core networks for the indicated domain identity.

31. (Original) A method in a mobile communication device, comprising:
receiving a system information broadcast message;
transmitting a signaling connection establishment message on the radio connection, the signaling connection establishment message including a registration request message;
receiving a registration accept message on the radio connection;
and
transmitting an uplink signaling message on the radio connection, the uplink signaling message including a core network operator identifier.

32. (Original) The method according to claim 31, wherein the uplink signaling message includes a domain identity, the domain identity comprising at least one of a packet switched domain indicator and a circuit switched domain indicator.

33. (Original) A method in a communication device, comprising:
transmitting a signaling connection establishment message on a connection, the signaling connection establishment message including a registration request message;

receiving a registration accept message on the connection; and
transmitting an uplink signaling message on the connection, the uplink signaling message including a core network operator identifier.

34. (Original) The method according to claim 33, wherein the uplink signaling message comprises a non-access stratum signaling message.

35. (Original) The method according to claim 34, wherein the uplink signaling message includes a domain identity.

36. (Original) The method according to claim 35, wherein the domain identity comprises at least one of a packet switched domain indicator and a circuit switched domain indicator.

37. (Original) The method according to claim 36, wherein the signaling connection establishment message comprises an initial core network signaling message.

38. (Original) The method according to claim 33, wherein the registration request message includes a desired core network operator identifier.

39. (Original) The method according to claim 33, wherein the registration accept message includes an assigned core network operator identifier.

ASSIGNMENT AND AGREEMENT

For good and valuable consideration, the receipt of which is hereby acknowledged, we, Ravi Kuchibhotla, Gurnee, IL; Niels Peter Skov Andersen, Denmark; and Stephen A. Howell, United Kingdom, have sold, assigned and transferred, and do hereby sell, assign and transfer, unto MOTOROLA, INC., a corporation of the State of Delaware, having its principal office in Schaumburg, State of Illinois, United States of America, and its successors, assigns, and legal representatives, the entire right, title and interest for the United States of America in and to certain inventions relating to improvements in Method and Apparatus for Routing Messages in a Network filed 10/07/03 as Serial No. 10/680,662 (Docket No. CS23283RL) described, illustrated and claimed in an application for Letters Patent of the United States of America executed by us on the dates indicated by our signatures below, together with the entire right, title and interest in and to the application, and in and to Letters Patent which may be issued upon the application, and upon any division, extension, continuation or reissue thereof.

We hereby also sell, assign and transfer unto MOTOROLA, INC., the entire right, title and interest in and to the invention and in and to applications for Letters Patent therefor in all countries foreign to the United States of America, including all rights under any and all international conventions and treaties in respect of the invention and the applications for Letters Patent in foreign countries, and we further authorize MOTOROLA, INC. to apply for Letters Patent in foreign countries directly in its own name, and to claim priority of the filing date of the application for Letters Patent of the United States of America under the provisions of any and all international conventions and treaties.

We hereby authorize and request the Commissioner of Patents of the United States of America to issue Letters Patent upon the aforesaid application, division, extension, continuation or reissue, to MOTOROLA, INC., for the sole use and benefit of MOTOROLA, INC., its successors, assigns and legal representatives, to the full end of the term for which Letters Patent may be granted, the same as they would have been held and enjoyed by me had this assignment not been made, and we hereby authorize and request the equivalent authorities in foreign countries to issue the patents of their respective countries to MOTOROLA, INC.

We agree that, when requested, we will, without charge to MOTOROLA, INC., but at its expense, sign all papers, take all rightful oaths, and do all acts which may be necessary, desirable or convenient for securing and maintaining patents for the inventions in any and all countries and for vesting title thereto in MOTOROLA, INC., its successors, assigns and legal representatives or nominees.

We covenant with MOTOROLA, INC., its successors, assigns and legal representatives, that the interest and property hereby conveyed is free from all prior assignment, grant, mortgage, license or other encumbrance.

Ravi Kuchibhotla

DATE: Jan. 6, 2004

STATE OF ILLINOIS
COUNTY OF LAKE

The undersigned Notary Public in and for the County and State aforesaid, do hereby certify that Ravi Kuchibhotla whose name is subscribed to the foregoing instrument, appeared before me this day in person and acknowledged that they signed, sealed and delivered the instrument as their free and voluntary act and deed for the uses and purposes therein set forth.

Given under my hand and notarial seal this 6TH day of January, 2004

My commission expires: 6/14/06

Jennifer H. Magness
Notary Public Signature

JENNIFER H. MAGNESS
Printed Name of Notary Public



Niels Peter Skov Andersen

Niels Peter Skov Andersen

DATE: 11th November 2003

STATE OF ILLINOIS
COUNTY OF LAKE

The undersigned Notary Public in and for the County and State aforesaid, do hereby certify that Niels Peter Skov Andersen whose name is subscribed to the foregoing instrument, appeared before me this day in person and acknowledged that they signed, sealed and delivered the instrument as their free and voluntary act and deed for the uses and purposes therein set forth.

Given under my hand and notarial seal this 11th day of November, 2003.

My commission expires: 6/14/06



Jennifer H. Magness
Notary Public Signature

JENNIFER H. MAGNESS
Printed Name of Notary Public

Stephen A. Howell
Stephen A. Howell

DATE: 6th Jan. 2004

STATE OF ILLINOIS
COUNTY OF LAKE

The undersigned Notary Public in and for the County and State aforesaid, do hereby certify that Stephen A. Howell whose name is subscribed to the foregoing instrument, appeared before me this day in person and acknowledged that they signed, sealed and delivered the instrument as their free and voluntary act and deed for the uses and purposes therein set forth.

Given under my hand and notarial seal this 6th day of January, 2004

My commission expires: 6/14/06



Jennifer H. Magness
Notary Public Signature

JENNIFER H. MAGNESS
Printed Name of Notary Public